

AMENDMENTS

In the Specification:

Please substitute the following for the paragraphs beginning on page 19 line 6 ending on page 19 line 18:

D1
The surface antigen recognized by a monoclonal antibody of the present invention can be isolated by a number of processes well known to artisans in the field. Representative procedures are immunoprecipitation and immunoaffinity purification of the target antigens from tissue homogenates or cell lysates. Both methods proceed with binding the target antigens to the monoclonal antibodies that are immobilized onto a solid-phase matrix (e.g. protein A and protein G sepharose beads), followed by separating the bound antigens with the unbound proteins, and finally eluting the antigens from the antibody-coupled solid-phase matrix. Subsequent analysis of the eluted antigens may involve electrophoresis for determining the molecular weight, and protein sequencing for delineating the amino acid sequences of the target antigen. Based on the deduced amino acid sequences, the cDNA encoding the antigen can then be obtained by recombinant cloning methods including PCR, library screening, homology searches in existing nucleic acid databases, or any combination thereof. Commonly employed databases include but are not limited to GenBank®, EMBL, DDBJ, PDB, SWISS-PROT®, EST, STS, GSS, and HTGS.

In the Claims:

Please amend claims 1, 10, 11, 31, and 40 as follows:

D2
1. (Amended) A method for immunizing a host mammal to produce a population of monoclonal antibodies that bind to cell surface antigens representative of a specific cell type that are heterologous to the host mammal, comprising repeatedly introducing into the mammal a plurality of viable and intact cells of said cell type under conditions which preserve the native configuration of surface antigens on said cells, wherein the surfaces of the cells are free of serum.

Sub E2 }
10. (Amended) The method for immunizing a mammal of claim 1, wherein the cells are selected from the group consisting of adult Schwann cells (ASC), embryonic Schwann cells (ESC), pancreatic epithelial cells from rat e12 embryonic pancreatic buds (BUD), pancreatic epithelial cells from rat e17 ductal epithelium (RED), and rat lung bronchiolar epithelial cells (RL-65) (ATCC NO. CRL-10354).

11. (Amended) A method of generating a population of monoclonal antibodies binding to surface antigens of a specific cell type, comprising the steps of:

(a) immunizing a host mammal by repeatedly introducing a plurality of viable and intact cells of a specific cell type that are heterologous to the host mammal under conditions which preserve the native configuration of the surface antigens on said cells, wherein the surfaces of the cells are free of serum;

(b) fusing lymphoid cells from the immunized mammal with an immortalized cell line to produce hybridomas that secrete monoclonal antibodies;

D3 (c) culturing the hybridomas under the conditions favorable for the secretion of monoclonal antibodies; and

(d) selecting the hybridomas that secrete monoclonal antibodies binding to surface antigens present on the viable and intact cells of step (a).

D4
31. (Amended) A method for producing a plurality of monoclonal antibodies that bind to cell surface antigens representative of a specific cell type that are heterologous to a host mammal, comprising immunizing the host mammal by repeatedly introducing a plurality of viable and intact cells of said cell type under conditions which preserve the native configuration of the surface antigens on said cells, wherein the surfaces of the cells are free of serum; fusing lymphoid cells from the immunized mammal with an immortalized cell line to produce hybridomas that secrete monoclonal antibodies; culturing the hybridomas under the conditions favorable for the secretion of monoclonal antibodies; and selecting the hybridomas that secrete monoclonal antibodies binding to surface antigens present on the viable and intact cells, wherein the surfaces of the cells are free of serum.

40. (Amended) The method for producing a population of monoclonal antibodies according to claim 31, wherein the cells are selected from the group consisting of adult Schwann cells (ASC), embryonic Schwann cells (ESC), pancreatic epithelial cells from rat e12 embryonic pancreatic buds (BUD), pancreatic epithelial cells from rat e17 ductal epithelium (RED), and rat lung bronchiolar epithelial cells (RL-65) (ATCC NO. CRL-10354).

Please add new claims 58-70 as follows:

58. (New) A method of improving the yield of a population of monoclonal antibodies that bind to cell surface antigens representative of a specific cell type that are heterologous to the host mammal, comprising repeatedly introducing into the mammal a plurality of viable and intact cells of said cell type under conditions which preserve the native configuration of surface antigens on said cells, wherein the surfaces of the cells are free of serum.

59. (New) The method according to claim 1, wherein the cells are normal cells.

60. (New) The method according to claim 1, wherein the cells are cancer cells.

61. (New) The method according to claim 1, wherein the repeated introduction into the mammal a plurality of viable and intact cells are without adjuvant.

62. (New) The method according to claim 11, wherein the cells are normal cells.

63. (New) The method according to claim 11, wherein the cells are cancer cells.

64. (New) The method according to claim 11, wherein the repeated introduction into the mammal a plurality of viable and intact cells are without adjuvant.

65. (New) The method according to claim 31, wherein the cells are normal cells.
66. (New) The method according to claim 31, wherein the cells are cancer cells.
67. (New) The method according to claim 31, wherein the repeated introduction into the mammal a plurality of viable and intact cells are without adjuvant.
68. (New) The method according to claim 58, wherein the cells are normal cells.
69. (New) The method according to claim 58, wherein the cells are cancer cells.
70. (New) The method according to claim 58, wherein the repeated introduction into the mammal a plurality of viable and intact cells are without adjuvant.
-